

IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Currently Amended): Process A process for the preparation of copolymers
of A) comprising copolymerizing monomers (A) and (B) wherein monomer (A) is a
(meth)acrylamides (meth)acrylamide A) of the formula I



in which:

$$\text{R}^1 = \text{H or CH}_3,$$

R^2 is an alkyl or aryl radical having up to 36 C atoms, which may additionally contain oxygen, nitrogen, sulphur and phosphorus atoms in the form of typical organic functionalities, such as which includes an ether, alcohol, acid, ester, amide, imide, phosphonic acid, phosphonic ester, phosphoric ester, phosphinic acid, phosphinic ester, sulphonic acid, sulphonic ester, sulphinic acid or sulphinic ester function, silicon, aluminium and boron atoms or halogens, such as including fluorine, chlorine, bromine or iodine, may denote methyl, ethyl, propyl, 2-propyl, butyl, tert-butyl, hexyl, ethylhexyl, octyl, dodecyl, octadecyl or

$\text{R}_3\text{-PO}(\text{OR}_4)_2$; where R_3 is an alkyl radical having up to 12 C atoms and R_4 is an alkyl having up to 4 C atoms, methylenedimethylphosphonate or methylenediethylphosphonate[[.]]
and monomer (B) is an

B) alkyl (meth)acrylates alkyl (meth)acrylate (B) of the formula II



in which: wherein R¹ has the abovementioned meanings[.] and R⁵ may assume the meanings of is an isopropyl or tert-butyl or isobutyl, and R⁵ may furthermore also be a longer-chain secondary or a longer-chain tertiary alcohol[.]

⊖ in a water-containing diluent and optionally further monomers copolymerizable with A) (A) or B) (B), characterized in that wherein the monomers A) (A) and B) (B) are used in a molar ratio of 1:10 to 10:1.

Claim 2 (Currently Amended): Process The process according to Claim 1, characterized in that wherein the monomers A) (A) and B) (B) are used in a molar ratio of 1:5 to 5:1.

Claim 3 (Currently Amended): Process The process according to Claim 1, characterized in that wherein the monomers A) (A) and B) (B) are used in a molar ratio of 1:2 to 2:1.

Claim 4 (Currently Amended): Process The process according to Claim 1, characterized in that wherein the diluent ⊖ used is a mixture of methanol, water and optionally further organic solvents.

Claim 5 (Currently Amended): Process The process according to Claim 1, characterized in that wherein the diluent ⊖ comprises more than 50% by weight of water.

Claim 6 (Currently Amended): Process The process according to Claim 1, characterized in that wherein the diluent ⊖ comprises more than 80% by weight of water.

Claim 7 (Currently Amended): ~~Process~~ The process according to Claim 1,
~~characterized in that wherein~~ the monomer (B) used is tert-butyl methacrylate.

Claim 8 (Currently Amended): ~~Process~~ The process according to a Claim 1,
~~characterized in that wherein~~ the copolymer is converted into a polymethacrylimide by
heating with elimination of gaseous reaction products.

Claim 9 (Currently Amended): ~~Process~~ The process according to Claim 1,
~~characterized in that wherein~~ the alkyl esters of the copolymer are first cleaved by catalysis
and the reaction product is converted into a polymethacrylimide in a second step by heating.

Claim 10 (Currently Amended): ~~Composition~~ A composition comprising a
copolymer produced according to ~~any of the above claims~~ the process as claimed in Claim 1
and additional blowing agents.

Claim 11 (Currently Amended): ~~Composition~~ The composition according to Claim
10, ~~characterized in that wherein~~ the blowing agent is at least one selected from the group
consisting of an alcohol having 3-8 carbon atoms, urea, N-monomethylurea, N-monomethyl-
and/or N,N'-dimethylurea, formic acid, formamide and/or and water.

Claim 12 (Currently Amended): ~~Process~~ A process for the production of a foam,
~~characterized in that wherein~~ a copolymer ~~or a composition produced~~ according to the
process as claimed in any of Claims 1 to 11 Claim 1 is moulded to give a moulding and then
foamed by heating.

Claim 13 (Currently Amended): ~~Use of the copolymers obtainable according to any of Claims 1 to 11 as~~ A general moulding material comprising a copolymer produced according to the process as claimed in Claim 1.

Claim 14 (Currently Amended): ~~Use of the moulding materials according to Claim 13~~ A process for the production of foams comprising utilizing the general moulding material as claimed in Claim 13.

Claim 15 (Currently Amended): ~~Process~~ A process for the production of foam bodies, ~~characterized in that~~ wherein the general moulding material according to Claim 13 is processed by foam extrusion or foam injection moulding.

Claim 16 (Currently Amended): ~~Use of the copolymers obtainable according to any of Claims 1 to 9 for the use or production of~~ A coating materials. material comprising a copolymer produced according to the process as claimed in Claim 1.

Claim 17 (Currently Amended): ~~Use of the copolymers obtainable according to any of Claims 1 to 9 for the use or production of~~ A membrane materials. material comprising a copolymer produced according to the process as claimed in Claim 1.

Claim 18 (Currently Amended): ~~Use of the foams stated in any of Claims 12, 14 and 15 in~~ A sandwich constructions. construction comprising the foam produced by the process as claimed in Claim 12.

Claim 19 (Currently Amended): ~~Use of the foams or sandwich constructions which can be produced according to any of the preceding claims in A space craft, an aircraft, a water vehicles vehicle or a land vehicles vehicle comprising the foam produced by the process as claimed in Claim 12.~~